Configuration

- **95 wired drops – 65 workstations**
- **40 wireless gateways**
- **16 laptops**
- **50 wireless handhelds**
- **Advanced Encryption Standard (AES) encryption with Dynamic Key Exchange (DKE)**
- **Average WLAN deactivation time required 3 minutes**

USS HOWARD Compliance Matrix

Interoperability

Compatibility with other Access Points and NICs

RF Transmission

Spectrum Compliance for non-licensed devices

Compliance with IPV6 mandate

Environmental

Temperature

Humidity

Shock

Vibration

Electromagnetic Interference

HERO

HERP/HERF

Security

Certification & Accreditation Compliance

Strong Authentication

Confidentiality (FIPS 140-2 minimum encryption)

Classified Data Handling

Un-trusted WLAN separation

WLAN AP/NIC Configuration

Split Tunneling

Common Criteria

PACOM Encryption Policy

EMCON

DISA STIG Compliance

TEMPEST

Compliance with Navy WLAN Moratorium

NAVAL WIRELESS NETWORKS SUMMIT . . . from concept to acquisition
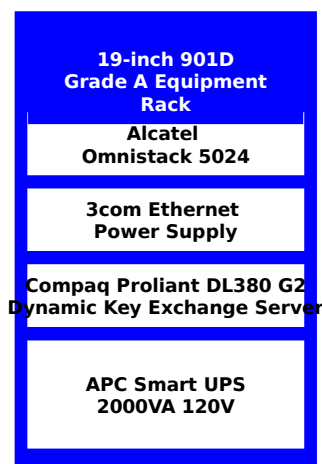
USS MASON WLAN

- *47 APs*
- *4 racks*
- *PoE (4 injectors)*
- *4 edge switches*
- *4 UPS*
- *2 DKE Servers*
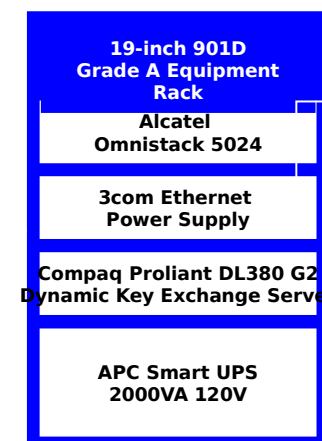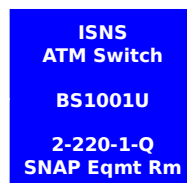- *RF power manager for APs*

3e-521NP Access Point

02-133-1-L
04-150-0-C
01-130-0-Q
01-163-2-L
03-158-2-Q
02-154-1-L
03-142-1-C
02-126-4-L

19-inch 901D Grade A Equipment Rack

Alcatel Omnistack 5024

3com Ethernet Power Supply

Compaq Proliant DL380 G2 Dynamic Key Exchange Server

APC Smart UPS 2000VA 120V

03-158-2-Q Array Room

ISNS ATM Switch

BS1001U

2-220-1-Q SNAP Eqmt Rm

ISNS ATM Switch

BS1001U

1-314-0-C CSER No. 3

19-inch 901D Grade A Equipment Rack

Alcatel Omnistack 5024

3com Ethernet Power Supply

Compaq Proliant DL380 G2 Dynamic Key Exchange Server

APC Smart UPS 2000VA 120V

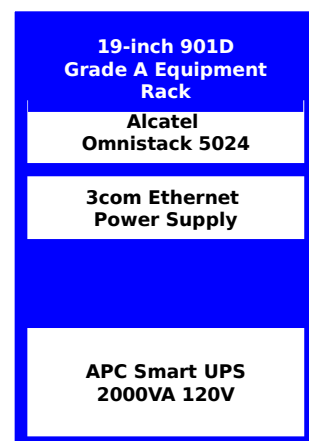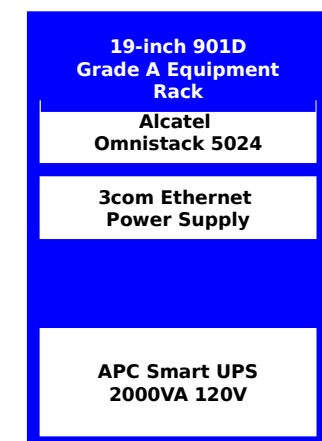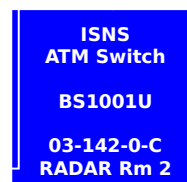**2-300-01-L Crew Living Space No. 3**

3e-521NP Access Point

01-314-01-L
01-309-2-L
01-294-0-T
1-377-0-L
1-300-0-C
1-268-0-C
1-254-0-Q
2-338-2-L
2-338-2-L
2-300-2-L
2-410-0-L
2-410-0-L
3-370-0-E
4-442-0-E
5-300-01-E
3-300-0-C
2-338-1-L

3e-521NP Access Point

2-220-2-Q
1-220-01-L
1-220-01-L
1-174-0-L
4-174-0-E
4-220-0-E
3-220-0-Q
2-161-1-T

19-inch 901D Grade A Equipment Rack

Alcatel Omnistack 5024

3com Ethernet Power Supply

APC Smart UPS 2000VA 120V

2-220-2-Q General Workshop

ISNS ATM Switch

BS1001U

03-142-0-C RADAR Rm 2

ISNS ATM Switch

BS1001U

4-94-0-C IC Gyro Rm 1

19-inch 901D Grade A Equipment Rack

Alcatel Omnistack 5024

3com Ethernet Power Supply

APC Smart UPS 2000VA 120V

1-54-1-A Security Force Issue Rm

3e-521NP Access Point

½-18-0-A
1-18-0-Q
1-42-01-L
2-78-01-L
1-126-4-L
1-78-01-L
2-46-0-L
2-126-2-C
4-42-0-Q
4-110-1-L
4-126-0-E

HOWARD WLAN Status

- ***1st Smartship Accredited 802.11b Install***

- ***Received IATO Mar 02***
  - ***Expired Nov 03***
  - ***WLAN order deactivated by PACFLT***

- ***Developed new, comprehensive SSAA***
  - ***Signed off by PMW 161 Feb 04***
  - ***Developed CONOPS for EMCON and Territorial Waters***

- ***Received Operational IATO May 04***

DDG 83 Focus

- *Capture Operational Requirements*
- *Evaluate Performance*
- *Demonstrate WLAN Operation under Controlled Environment*
- *Development of Business Case*
- *Preliminary to Type Accreditation (Class-wide)*
- *Awareness of Testing, Documentation, Risk Mitigation*
- *Foster Collaborative Relationships throughout C&A and Technology Transition Process*
- *Provide Period for Completion of Additional Testing and Certification and Accreditation Tasks*
- *Allow for West Coast as well as East Coast Resource*

HOWARD WLAN - *Future*

- **Near Term**
  - *Upgrade to new, dynamic RF power management*
    - *New client drivers*
    - *Scripts to automatically set ship-wide power levels for EMCON based on emissions survey results*
  - *Upgrade to same architecture as USS MASON*
- **Long Term**
  - *Achieve ATO (either for 83 or DDG 51 class)*
  - *Upgrade to new capabilities as available*
    - *Common Criteria Certified*
    - *IPv6*
    - *DoD PKI*

Acquisition Process

- **Interim Authority to Operate**
  - **SSAA Development**
  - **Initial Testing Results**
  - **NIAP Intent**
  - **FIPS Validation**

+

- **Type Accreditation**
  - **SSAA Robustness**
  - **Class-wide Applications**
  - **Common Criteria Completion**

Authority to Operate

- **Mature SSAA**
- **Complete Acquisition Package**
- **Complete Test Results**
- **Established Technology Transition Agreement**

Issues

- ***Intrusion Detection***
- ***Territorial Waters***
- ***Metrics for Business Case Development***

USS SULLIVANS

- *Gig E*
- *Collaborated ISNS Rollout*
- *DDG Flt I*
- *Applications*
- *Additional Testing Opportunity*
- *Metrics*